

Date: Friday, 9/14/2007 2:01:49 PM  
 User: Kim Johnston

## Process Sheet

SPLIT-2

Customer : CU-DAR001 Dart Helicopters Services  
 Job Number : 34684  
 Estimate Number : 10025  
 P.O. Number : N/A  
 This Issue : 9/14/2007 S.O. No. : N/A  
 Prsht Rev. : NC  
 First Issue : N/A Type : RMA  
 Previous Run : 29113  
 Written By :  
 Checked & Approved By :  
 Comment : Est Rev:B 00.12.15 Added: Issue P/O EC

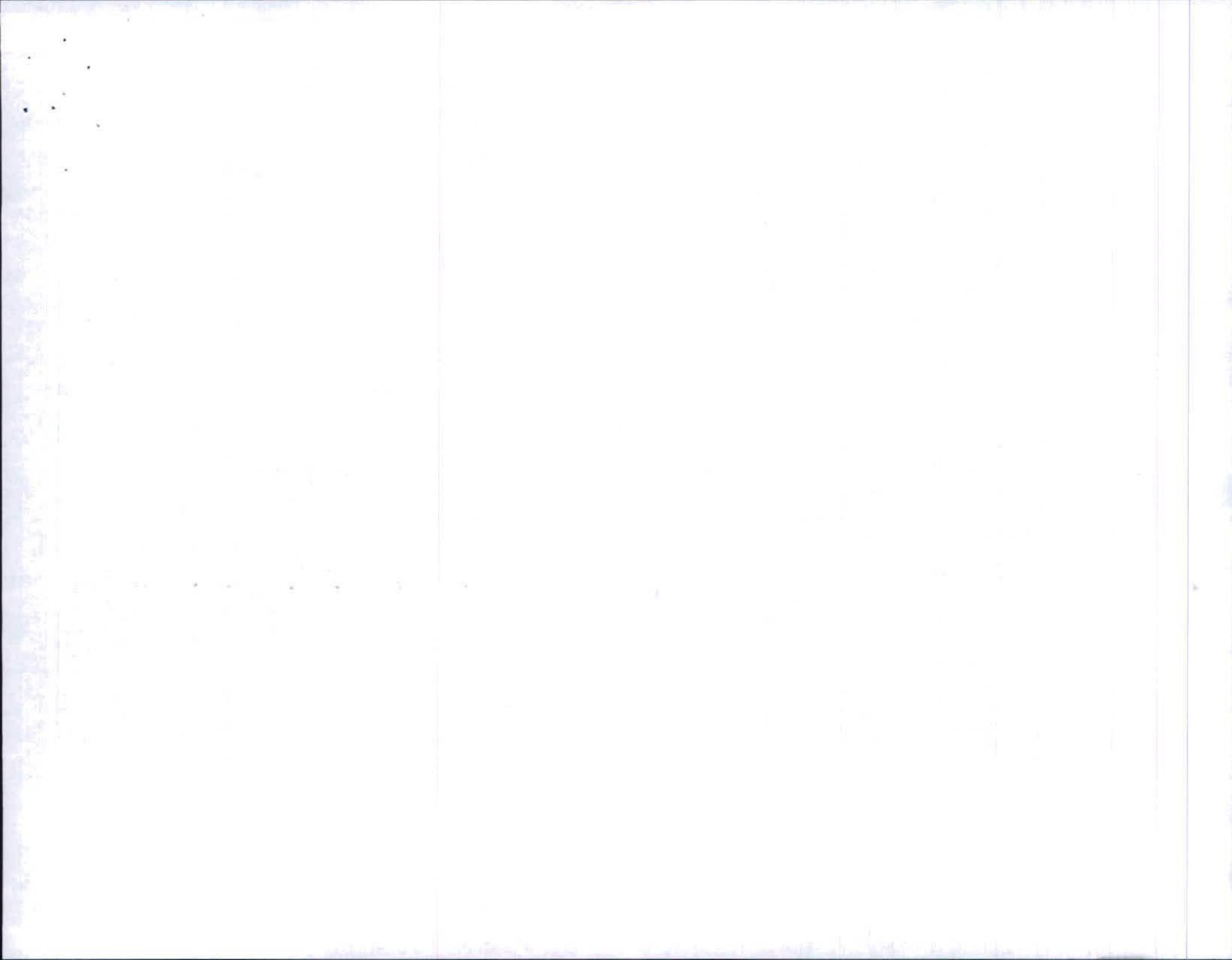
Drawing Name : CROSSTUBE EXTRUSION (206L)  
 Part Number : D6002115  
 Drawing Number : D6002 REV A  
 Project Number : N/A  
 Drawing Revision : A  
 Material : N/A  
 Due Date : 1/30/2008  
 Qty: 27 Um: Each

## Additional Product

Job Number:



| Seq. #: | Machine Or Operation:  | Description:              |
|---------|--|---------------------------|
| 1.0     | PG   | PURCHASING                |
|         |  |                           |
|         | Comment: PURCHASING<br>Issue P/O <u>46011</u>  | <u>CLO 7/09/18</u>        |
|         | a) Extrude as per Dwg D6002<br>b) Material: 7075-T6/T6511 (WW-T-700/7 or QQ-A-225/9<br>or QQ-A-200/11) seamless aluminum tube<br>c) Minimum ultimate tensile strength = 77 ksi<br>d) Minimum tensile yield strength=66 ksi<br>e) Material certification required | (27)                      |
| 2.0     | D6002115P  | Crosstube material        |
|         |  |                           |
|         | Comment: Qty.: 1.0000 Each(s)/Unit Total : 27.0000 Each(s)<br>Crosstube material   |                           |
| 3.0     | PACKAGING 1  | PACKAGING RESOURCE #1     |
|         |  | <br><u>1/8/3/10</u>       |
|         | Comment: PACKAGING RESOURCE #1<br>Receive & Inspect For Transit Damage<br>Ensure material certification is attached  | <u>8/01/03 (30)</u>       |
| 4.0     | QC6  | DIMENSIONAL CHECK         |
|         |  | <br><u>5/08/03/11 (6)</u> |
|         | Comment: DIMENSIONAL CHECK<br>Ensure Material certification comply to Dwg D6002  | <u>5/08/01/04 (30)</u>    |



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Drawing Name: CROSSTUBE EXTRUSION (206L)

Job Number: 34684

Part Number: D6002115

Job Number:



Seq. #: Machine Or Operation:

Description:

5.0 HAND FINISHING1

HAND FINISHING RESOURCE #1



Comment: HAND FINISHING RESOURCE #1

Chemical Conversion Coat as per QSI 005 4.1

*Mus S o8/03/04*

6.0 PACKAGING 1

PACKAGING RESOURCE #1



Comment: PACKAGING RESOURCE #1

Identify and Stock

Location: MAT 26

*SL Q.M 08.03.12 (6)*

*J.F. 08/01/04*

7.0 QC21

FINAL INSPECTION/W/O RELEASE



Comment: FINAL INSPECTION/W/O RELEASE

Job Completion



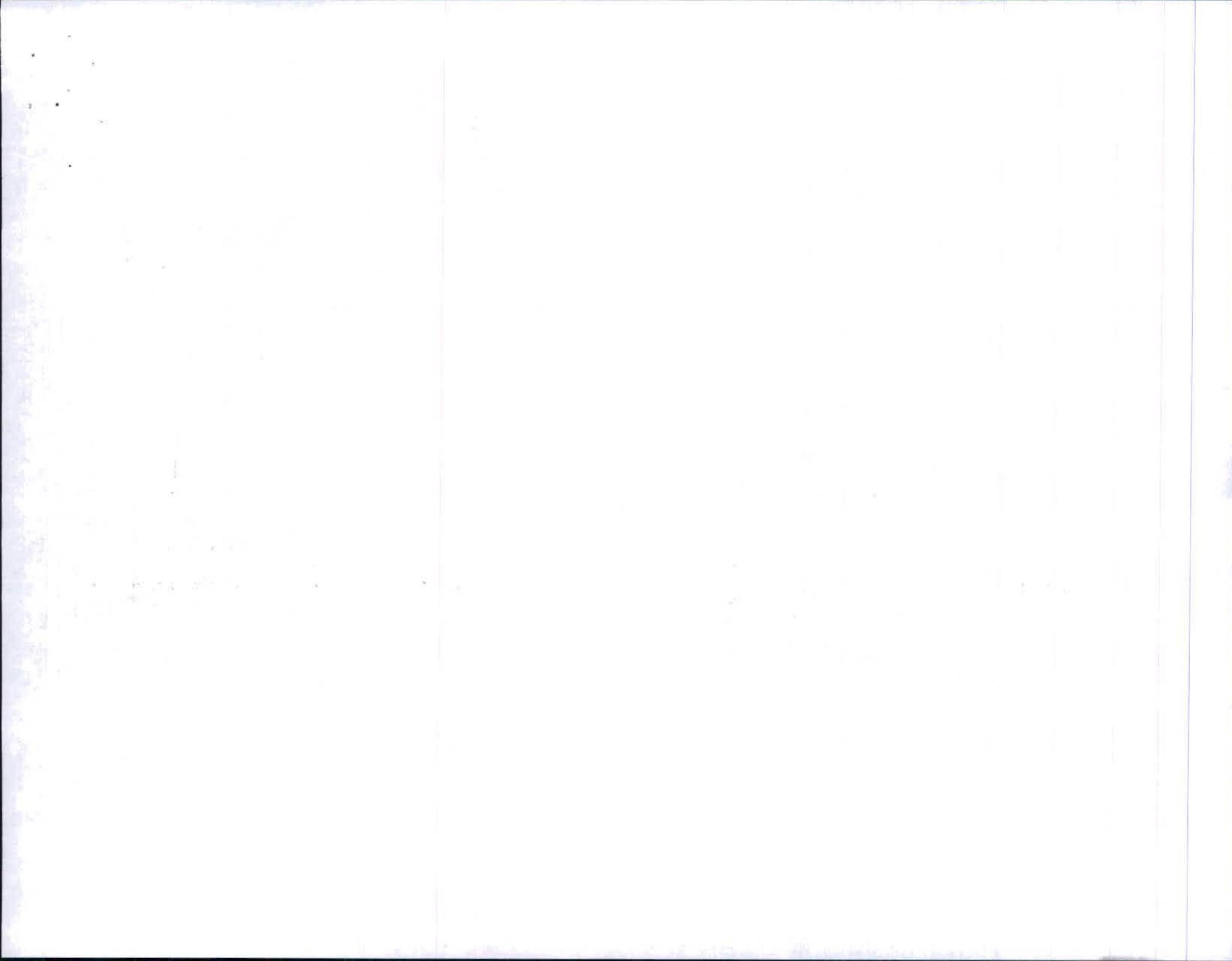
*mi 2008/1/14*

*2008/01/04*

*2008/01/04*

*mi 2008/3/13*

*(6)*



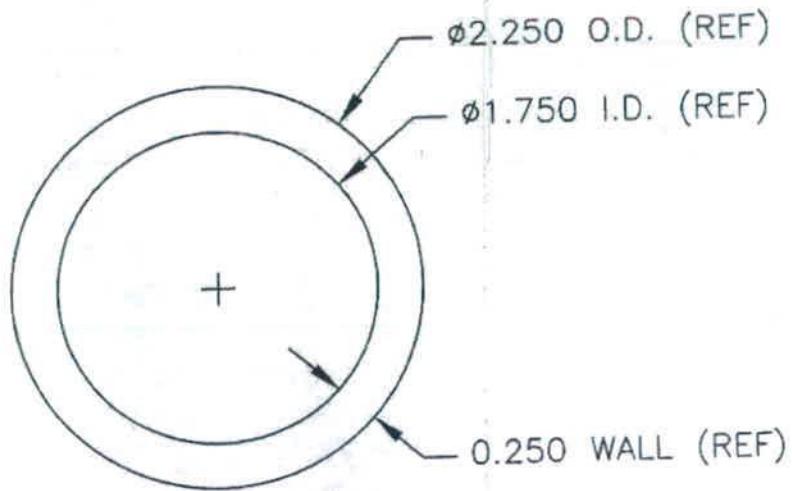


COPIED  
ISSUED

|                     |                       |   |                        |
|---------------------|-----------------------|---|------------------------|
| DESIGN<br><i>CP</i> | DRAWN BY<br><i>CP</i> | DART AEROSPACE LTD<br>HAWKESBURY, ONTARIO, CANADA |                        |
| CHECKED<br><i>#</i> | APPROVED<br><i>#</i>  | DRAWING NO.<br>D6002                              | REV. A<br>SHEET 1 OF 1 |
| DATE<br>00.11.22    |                       | TITLE<br>CROSSTUBE MATERIAL                       | SCALE<br>1:1           |
| A                   | 00.11.22              | NEW ISSUE   |                        |

## SPECIFICATION CONTROL DRAWING

RELEASED  
00.11.24 *OK*



### NOTES

1) D6002-XXX CROSSTUBE

LENGTH

WHERE XXX IS LENGTH IN INCHES  
EG. 115" LONG TUBE: D6002-115

2) MATERIAL: 2.250 OD x 0.250 WALL 7075-T6/T6511 (WW-T-700/7 OR QQ-A-225-9 OR  
QQ-A-200/11) SEAMLESS ALUMINUM TUBE.  
MINIMUM ULTIMATE TENSILE STRENGTH = 77 ksi  
MINIMUM YIELD TENSILE STRENGTH = 66 ksi

3) TOLERANCES ARE PER ASTM B210 AS FOLLOWS:  
O.D.:  $\pm 0.006$  MEAN ( $\pm 0.012$  INCLUDING OVALITY)  
WALL:  $\pm 0.008$  MEAN ( $\pm 0.025$  INCLUDING ECCENTRICITY)  
LENGTH: XXX  $+0.125/-0.000$   
STRAIGHTNESS: 0.010" DEVIATION / 12" LENGTH

4) EXTREME CARE MUST BE TAKEN TO PROTECT THE OUTSIDE SURFACE OF THE TUBE. THE  
OUTSIDE SURFACE MUST BE SMOOTH AND FREE FROM SURFACE DEFECTS SUCH AS  
SCRATCHES, NICKS, OR DENTS. DEFECTS UP TO 0.005" MAY BE BLENDED OUT  
LONGITUDINALLY. CIRCUMFERENTIAL GRIND MARKS ARE UNACCEPTABLE.

5) CHEMICAL CONVERSION COAT PER DART QSI 005 4.1

UNCONTROLLED COPY  
SUBJECT TO AMENDMENT  
WITHOUT NOTICE  
WORK ORDER  
NO. 34884



**L Lacelle**

---

**From:** Lee Dykes [lee@batubesusa.com]  
**Sent:** January 17, 2008 6:36 PM  
**To:** Linda Lacelle  
**Subject:** Fw: DART AEROSPACE OVERAGE

Hi Linda,

Would you please let us know if the overage can be accepted by Dart. Also, please let me know what engineering had to say on the 3-1/4".

Thanks, Lee

----- Original Message -----

**From:** Lynna Beckerle  
**To:** Lee Dykes  
**Sent:** Thursday, January 17, 2008 5:14 PM  
**Subject:** Fw: DART AEROSPACE OVERAGE

Hi Lee,

Would you mind forwarding this to Dart?

Thanks a bunch!

Lynna

----- Original Message -----

**From:** Carmichael, Susan  
**To:** Lynna Beckerle  
**Sent:** Thursday, January 17, 2008 10:37 AM  
**Subject:** DART AEROSPACE OVERAGE

OUR ORDER NO. 94945

We have item 7 now complete and item 5 coming through.

There is a small amount of overage on item 1 that is complete, we despatched 30 lengths.

Can you ask the question if they can accept a total of 6 lengths overage, if they can we can consolidate and ship with the above.

Thanks and regards

Susan

Susan Carmichael

Despatch Manager

BA Tubes Limited

Direct telephone: 01527484582

Direct fax: 01527484505

BA Tubes Limited  
Studley Road, Redditch, Worcestershire, B98 7HN, England

Registered in England No. 398 1395  
Registered Office : The Victoria,

| W/O: |      | WORK ORDER CHANGES |    |      |     |                                     |                          |
|------|------|--------------------|----|------|-----|-------------------------------------|--------------------------|
| DATE | STEP | PROCEDURE CHANGE   | By | Date | Qty | Approval<br>Chief Eng /<br>Prod Mgr | Approval<br>QC Inspector |
|      |      |                    |    |      |     |                                     |                          |
|      |      |                    |    |      |     |                                     |                          |

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_  
 QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

| NCR: |      | WORK ORDER NON-CONFORMANCE (NCR) |                             |                                 |                |                           |                       |                          |
|------|------|----------------------------------|-----------------------------|---------------------------------|----------------|---------------------------|-----------------------|--------------------------|
| DATE | STEP | Description of NC<br>Section A   | Corrective Action Section B |                                 |                | Verification<br>Section C | Approval<br>Chief Eng | Approval<br>QC Inspector |
|      |      |                                  | Initial<br>Chief Eng        | Action Description<br>Chief Eng | Sign &<br>Date |                           |                       |                          |
|      |      |                                  |                             |                                 |                |                           |                       |                          |
|      |      |                                  |                             |                                 |                |                           |                       |                          |
|      |      |                                  |                             |                                 |                |                           |                       |                          |

NOTE: Date & initial all entries

• 150-182 Harbour City, Salford Quays, Salford, M50 3SP, England.  
V.A.T. Registration No. GB 668 2142 26

This message has been scanned for malware by SurfControl plc. [www.surfcontrol.com](http://www.surfcontrol.com)

---

No virus found in this incoming message.

Checked by AVG Free Edition.

Version: 7.5.516 / Virus Database: 269.19.6/1229 - Release Date: 1/17/2008 11:12 AM

| W/O: |      | WORK ORDER CHANGES |    |      |     |                                     |                          |
|------|------|--------------------|----|------|-----|-------------------------------------|--------------------------|
| DATE | STEP | PROCEDURE CHANGE   | By | Date | Qty | Approval<br>Chief Eng /<br>Prod Mgr | Approval<br>QC Inspector |
|      |      |                    |    |      |     |                                     |                          |
|      |      |                    |    |      |     |                                     |                          |

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_  
 QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

| NCR: |      | WORK ORDER NON-CONFORMANCE (NCR) |                             |                                 |                |                           |                       |                          |
|------|------|----------------------------------|-----------------------------|---------------------------------|----------------|---------------------------|-----------------------|--------------------------|
| DATE | STEP | Description of NC<br>Section A   | Corrective Action Section B |                                 |                | Verification<br>Section C | Approval<br>Chief Eng | Approval<br>QC Inspector |
|      |      |                                  | Initial<br>Chief Eng        | Action Description<br>Chief Eng | Sign &<br>Date |                           |                       |                          |
|      |      |                                  |                             |                                 |                |                           |                       |                          |
|      |      |                                  |                             |                                 |                |                           |                       |                          |
|      |      |                                  |                             |                                 |                |                           |                       |                          |

NOTE: Date & initial all entries



ALUnna Tubes Limited  
Telephone 01527 484500 - Facsimile 01527 484501  
www.alunnatubes.com

# Approved Certificate According to EN10204:2000

For all Customer and 3rd Party approvals  
visit [www.alunnatubes.com](http://www.alunnatubes.com)

No. C/1

| Customer  |                 |  |           | Your Order No<br>PO00004611<br>D6002-115P  |                       | Other Tests Passed   |                  |                     |     |     |      |     |      |     |     |      |     |   |
|---|-----------------|--|-----------|--|-----------------------|----------------------|------------------|---------------------|-----|-----|------|-----|------|-----|-----|------|-----|---|
| DART AEROSPACE LIMITED<br>1270 ABERDEEN STREET<br>HAWKESBURY<br>ONTARIO<br>CANADA<br>K6A 1K7              |                 |  |           | Our Order No<br>94945/1<br>Packing Note No<br>151481<br>Date<br>31/01/08<br>Packages<br>1 CASE |                       |                      |                  |                     |     |     |      |     |      |     |     |      |     |   |
| Size / Description<br>SEAMLESS DRAWN TUBE 2.250 INS O/D .250 INS W/T 7075 Alloy<br>Length - 115.00 inches |                 |  |           | Specification<br>7075 T6<br>WW-T-700/7B  |                       |                      |                  |                     |     |     |      |     |      |     |     |      |     |   |
| No of Pieces  | Nett Weight Lbs |  |           | Tensile Test   |                       |                      |                  | Chemical Analysis % |     |     |      |     |      |     |     |      |     |   |
|   |                 |  |           | Test No  | 0.2% Proof Stress KSI | Tensile Strength KSI | % Elongation 2in | Heat or Cast No     | Si  | Fe  | Cu   | Mn  | Mg   | Cr  | Ni  | Zn   | Zr  | T |
| 6   | 110             |  | 331211 LO | 67.7   | 78.2                  | 14                   |                  | 2N267               | .09 | .26 | 1.53 | .04 | 2.58 | .19 | .01 | 5.85 | .01 |   |

## Remarks

ALLOY MELTED IN THE UNITED KINGDOM

Authorised Inspection Representative

Mr Terry Layton - For and on behalf of Alunna Tu

Registered in England No. 06448371  
Registered Office : Studley Road, Redditch,  
Worcestershire, B98 7HN, England  
V.A.T. Registration No. GB 923 7112 44

In accordance with the RoHS directive,  
Tubes certify that the above mentioned  
not contain banned or relevant substan-

Mercury Free

This certificate should not be reproduced other than in full, without the written approval of Alunna.  
These results pertain only to the item(s) tested as samples by the client unless otherwise indicated.

